

ABSTRACT OF THE DISCLOSURE

Disclosed are a functional high-strength adhesive sheet using a nonwoven fabric, which is widely applied, a system and a method for manufacturing the adhesive sheet, and a functional high-strength steel plate attached with the adhesive sheet. The functional high-strength adhesive sheet comprises a polyethylene layer, a nonwoven fabric in which the polyethylene is pressed to its one surface, and a functional polyethylene layer pressed to the other surface of the nonwoven fabric. The functional high-strength adhesive sheet is manufactured by the method comprising: the steps of preheating the nonwoven fabric in the system; supplying and pressing a polyethylene on one surface of the preheated nonwoven fabric; uniformly distributing the polyethylene pressed on the nonwoven fabric, thus forming a polyethylene layer; drawing and transferring a preliminary sheet provided with the nonwoven fabric and the polyethylene layer pressed thereon, and winding the preliminary sheet on a winding roller; preheating the preliminary sheet; supplying and pressing a functional polyethylene on the other surface of the preheated preliminary sheet; uniformly distributing the functional polyethylene pressed on the preliminary sheet, thus forming a functional polyethylene layer; and drawing and transferring an adhesive sheet provided with the preliminary

sheet and the functional polyethylene layer pressed thereon,
and winding the adhesive sheet on the winding roller.